PAGES 663-818

ISSN 0300~9580

JOURNAL OF THE CHEMICAL SOCIETY

Perkin Transactions II

A journal of physical organic chemistry

No.6 June 1987



ROYAL SOCIETY OF CHEMISTRY

Officers and Council of the Perkin Division 1986-87

President Dr. C. H. Hassall

Professor W. D. Ollis Dr. A. M. Roe

Vice Presidents Professor C. J. M. Stirling Professor I. O. Sutherland

Ordinary Members

Professor J. G. Buchanan Dr. J. S. Davies Dr. D. A. Evans Professor B. T. Golding

Professor R. Grigg Professor A. F. Hegarty Professor G. Pattenden Dr. B. J. Price

Professor S. Trippett

Honorary Secretary/Treasurer Professor P. G. Sammes

Chairman of the Publications & Information Board Professor J. M. Ward

> Chairman of Journals Committee Professor P. M. Maitlis

Perkin Editorial Board Professor I. O. Sutherland (Chairman) Professor R. Baker Dr. A. J. Kirby Dr. S. M. Roberts Dr. G. M. Blackburn Dr. D. A. Whiting

Manager Journals Perkin I Transactions Editor Dr. E. R. Smith Perkin II Transactions Editor Mr. H. MacGrillen

Dr. A. D. McNaught Assistant Editors Dr. P. I. C. Berthier Dr. J. Whittaker Miss B. Sharma Miss P. Sehmi

Editorial Office

The Royal Society of Chemistry, Burlington House, London, W1V 0BN Telephone No. 01-734 9864

Perkin Transactions II (ISSN 0300-9580) is published monthly by the Royal Society of Chemistry, Burlington House, London W1V 0BN, England. 1987 Annual Subscription Price UK £246.00, Rest of World £276.00, U.S.A. \$486.00. Change of address and orders with payment in advance to The Royal Society of Chemistry, The Distribution Centre, Blackhorse Road, Letchworth, Herts SG6 1HN, England. Air Freight and mailing in the U.S. by Publications Expediting Inc., 200 Meacham Avenue, Elmont, New York 11003. U.S. Postmaster: send address changes to Perkin Transactions II, Publications Expediting Inc., 200 Meacham Avenue, Elmont, New York 11003. Second class postage paid at Jamaica, New York 11431. All other despatches outside the UK by Bulk Airmail within Europe and Accelerated Surface Post outside Europe. PRINTED IN THE UK.

Information for Authors

Full details of how to submit material for publication in Perkin Transactions 1 and 2 are given in Instructions for Authors (J. Chem. Soc., Perkin Trans. 1 or 2, 1987, Issue 1).

The subject matter of Perkin Transactions 1 embraces all aspects of organic and bio-organic chemistry. These include synthetic organic chemistry of all types, organometallic chemistry, chemistry and biosynthesis of natural products, the relationship between molecular structure and biological activity, the chemistry of polymers and biological macromolecules, and medicinal and agricultural chemistry where there is originality in the science.

Perkin Transactions 2 deals with the physicochemical aspects of organic, organometallic and bio-organic chemistry including kinetic, mechanistic, structural, spectroscopic, and theoretical studies. Such topics include structure-activity relationships and physical aspects of biological processes and of the study of polymers and biological macromolecules.

All contributions are judged on the criteria of (i) originality and quality of and scientific content (ii)appropriateness of the length to the content of new science. Short papers are acceptable provided that they constitute full reports of completed pieces of work and are not fragments of more extensive studies.

Manuscripts (three copies typed in double spacing) should be addressed to:

The Manager, Journals, Royal Society of Chemistry, Burlington House, Piccadilly, LONDON W1V 0BN

Particular attention should be paid to the use of standard methods of literature citation, including the iournal abbreviations defined in Chemical Abstracts Service Source Index. Wherever possible, the nomenclature employed should follow IUPAC recommendations, and units and symbols should be those associated with SI.

All queries relating to the presentation and submission of papers, and any correspondence regarding accepted papers and proofs, should be directed to the Editor, Perkin Transactions 1 or 2 (address as above). Members of the Perkin Editorial Board (who may be contacted directly or via the Editorial Office) would welcome comments, suggestions, and advice on general policy matters concerning Perkin Transactions.

Fifty reprints of each published contribution are supplied free of charge, and further copies can be purchased.

[©] The Royal Society of Chemistry, 1987. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form, or by any means, electronic, mechanical, photographic, recording, or otherwise, without the prior permission of the publishers.